

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN072825\
 Data File : VN087428.D
 Acq On : 28 Jul 2025 13:22
 Operator : JC\MD
 Sample : VN0728WBL01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

Quant Time: Jul 28 13:41:09 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N072825W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Mon Jul 28 11:35:47 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

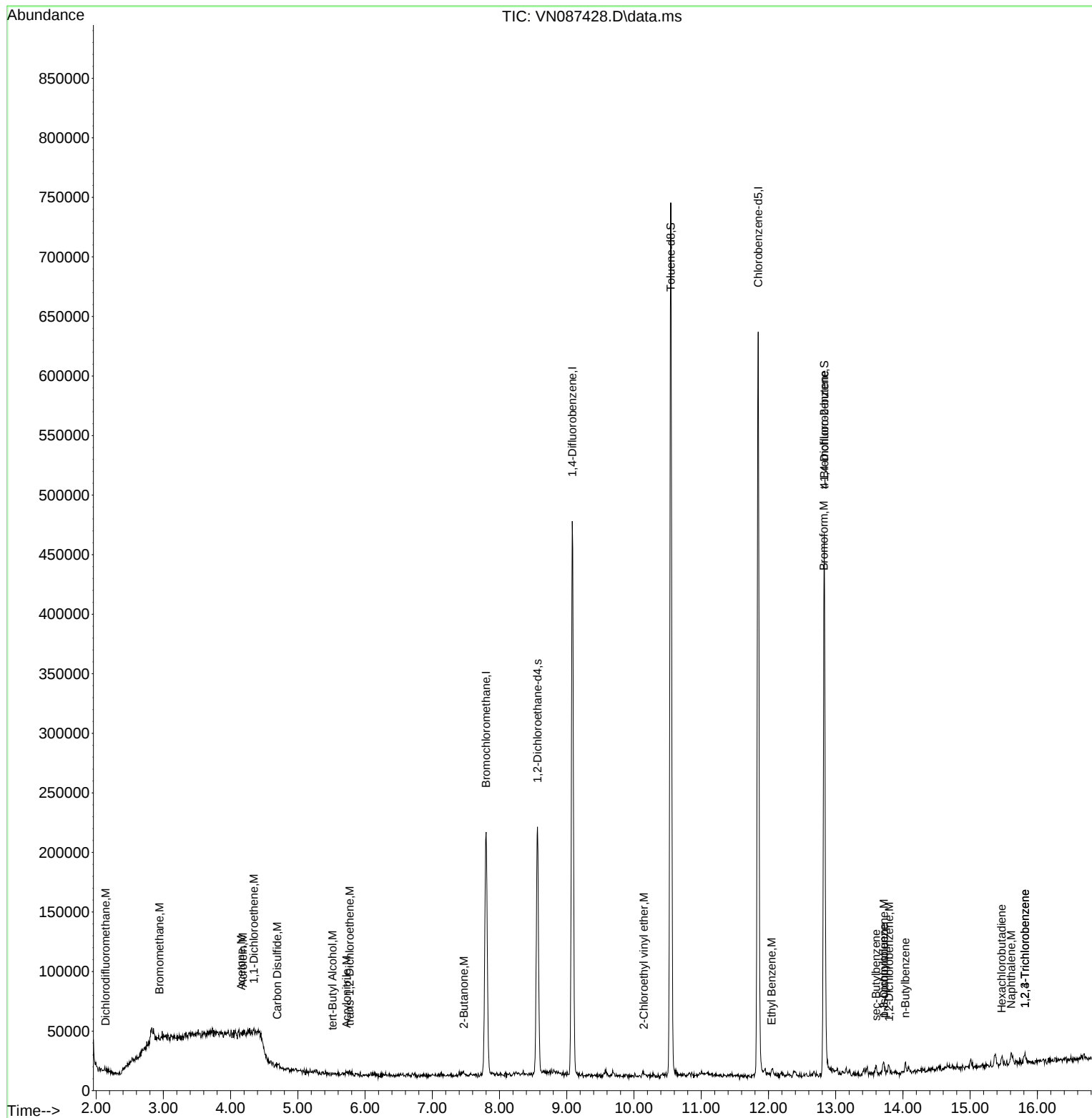
Internal Standards						
1) Bromochloromethane	7.800	128	71572	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	407686	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	348117	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.565	65	164125	29.988	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	99.967%
60) 4-Bromofluorobenzene	12.829	95	163739	28.643	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	95.467%
63) Toluene-d8	10.547	98	490872	30.705	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	102.333%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.142	85	1078	0.258	ug/l #	45
5) Bromomethane	2.942	94	448	0.205	ug/l	86
10) 1,1-Dichloroethene	4.348	96	1081	0.353	ug/l #	6
13) Acrolein	4.183	56	650	1.194	ug/l	95
14) Acrylonitrile	5.724	53	1405	0.485	ug/l #	41
15) Acetone	4.159	58	170	0.253	ug/l	76
16) Carbon Disulfide	4.695	76	5916	0.544	ug/l #	80
19) trans-1,2-Dichloroethene	5.771	96	874	0.201	ug/l #	8
23) tert-Butyl Alcohol	5.518	59	421	0.375	ug/l #	100
30) 2-Butanone	7.471	43	1285	0.306	ug/l #	57
55) 2-Chloroethyl vinyl ether	10.147	63	982	0.293	ug/l	97
56) Bromoform	12.823	173	1394	0.385	ug/l #	1
66) Ethyl Benzene	12.047	91	4614	0.215	ug/l	97
77) t-1,4-Dichloro-2-butene	12.829	75	87896	33.041	ug/l #	14
81) sec-Butylbenzene	13.600	105	4526	0.211	ug/l	82
82) p-Isopropyltoluene	13.717	119	3712	0.213	ug/l	95
83) 1,3-Dichlorobenzene	13.717	146	1927	0.217	ug/l	83
85) n-Butylbenzene	14.035	91	4865	0.277	ug/l	87
87) 1,2-Dichlorobenzene	13.794	146	1856	0.215	ug/l	82
89) 1,2,4-Trichlorobenzene	15.817	180	2181	0.414	ug/l #	71
90) Hexachlorobutadiene	15.470	225	463	0.231	ug/l #	19
91) Naphthalene	15.611	128	7920	0.398	ug/l #	79
92) 1,2,3-Trichlorobenzene	15.817	180	2181	0.414	ug/l	71

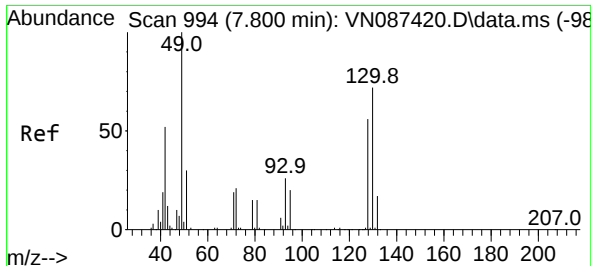
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Mon Jul 28 11:35:47 2025
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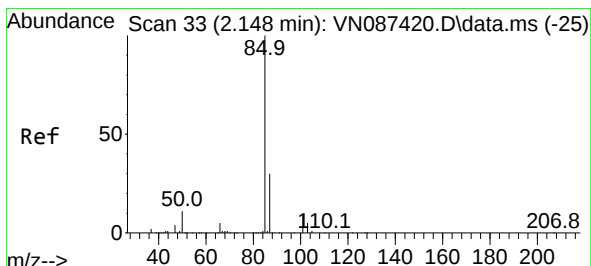
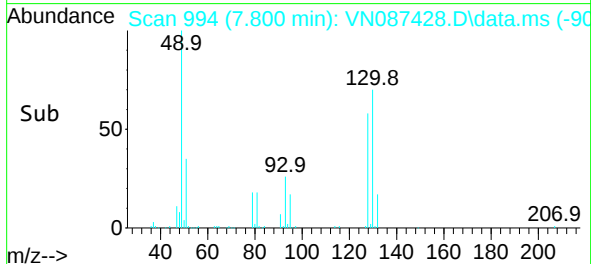
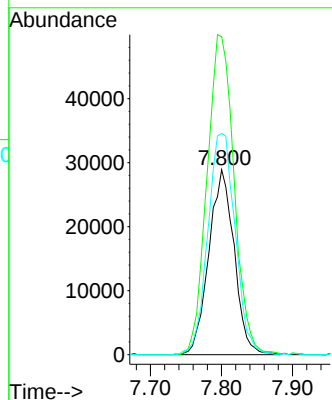
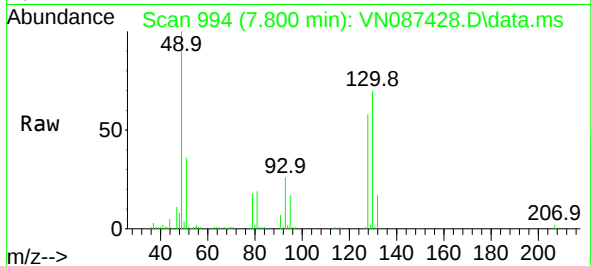




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

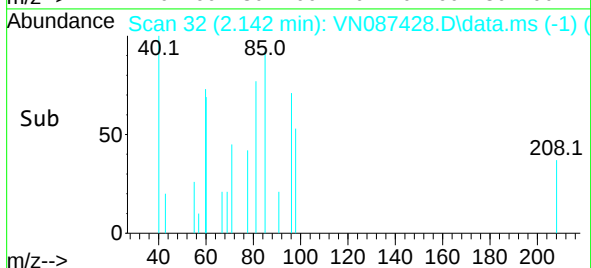
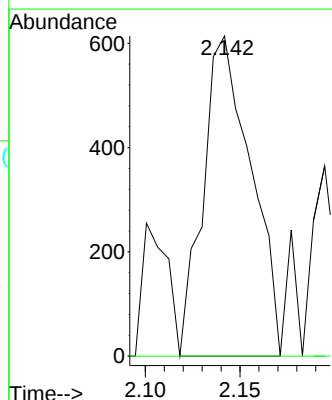
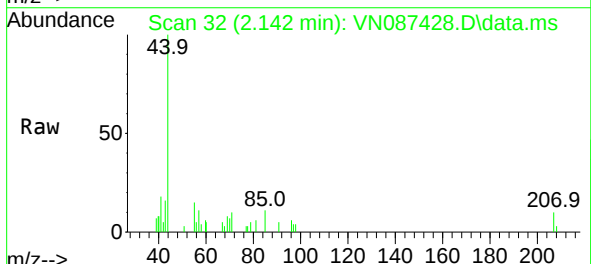
Instrument :
MSVOA_N
ClientSampleId :

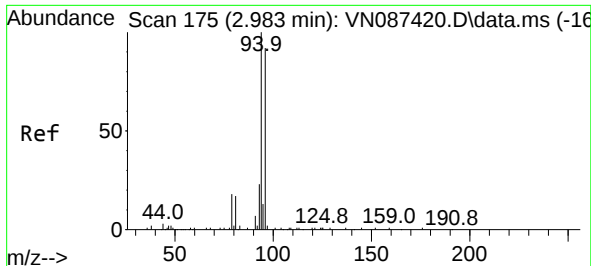
Tgt Ion:128 Resp: 71572
Ion Ratio Lower Upper
128 100
49 184.2 0.0 457.3
130 129.2 0.0 316.0



#2
Dichlorodifluoromethane
Concen: 0.258 ug/l
RT: 2.142 min Scan# 32
Delta R.T. -0.006 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Tgt Ion: 85 Resp: 1078
Ion Ratio Lower Upper
85 100
87 0.0 15.0 45.1#

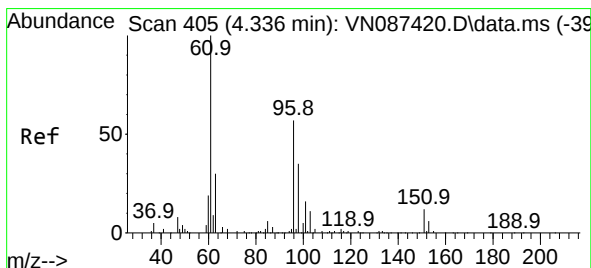
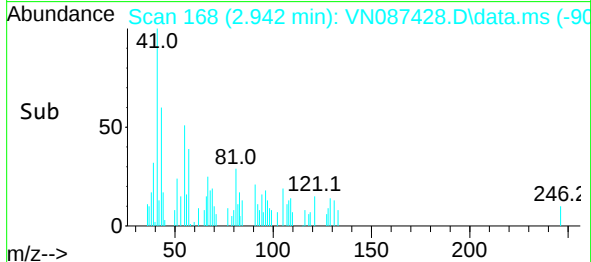
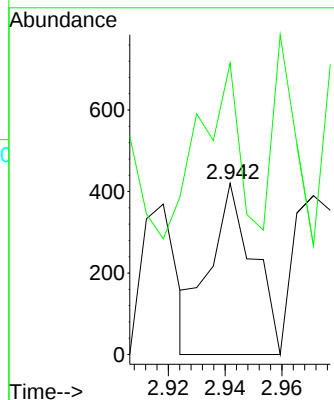
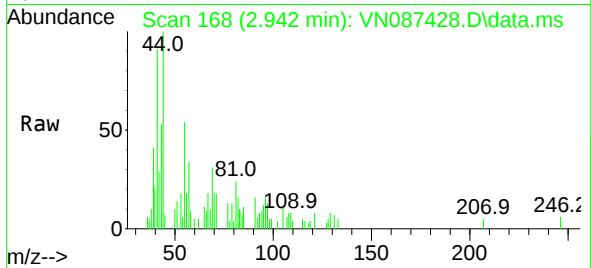




#5
Bromomethane
Concen: 0.205 ug/l
RT: 2.942 min Scan# 11
Delta R.T. -0.041 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

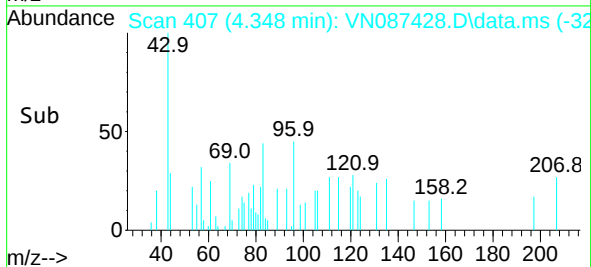
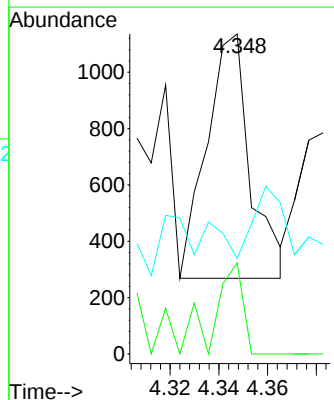
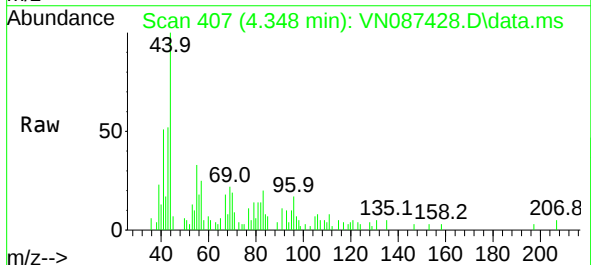
Instrument :
MSVOA_N
ClientSampleId :

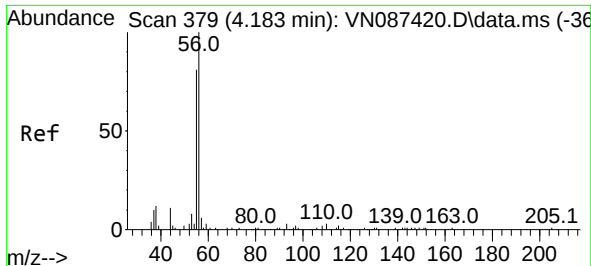
Tgt Ion: 94 Resp: 448
Ion Ratio Lower Upper
94 100
96 78.3 73.2 109.8



#10
1,1-Dichloroethene
Concen: 0.353 ug/l
RT: 4.348 min Scan# 407
Delta R.T. 0.012 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Tgt Ion: 96 Resp: 1081
Ion Ratio Lower Upper
96 100
61 37.3 140.4 210.6#
98 0.0 49.6 74.4#

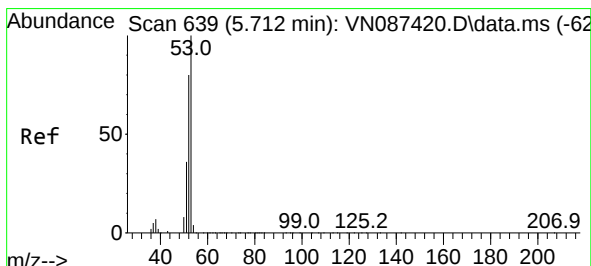
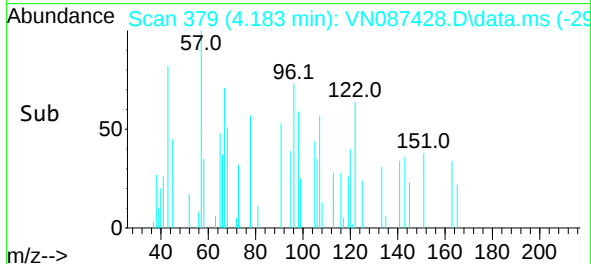
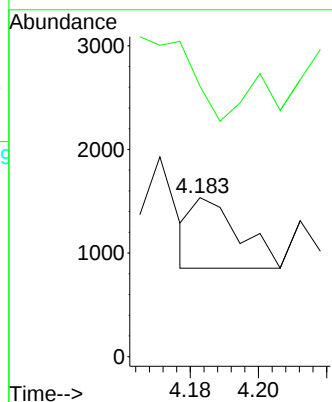
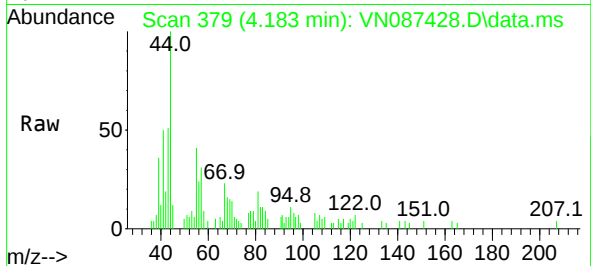




#13
Acrolein
Concen: 1.194 ug/l
RT: 4.183 min Scan# 31
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

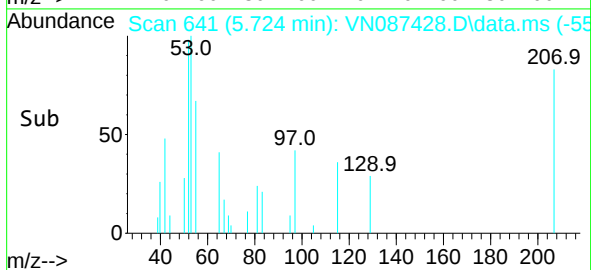
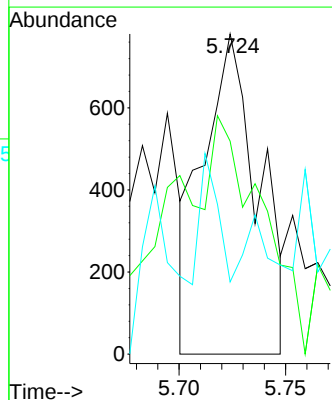
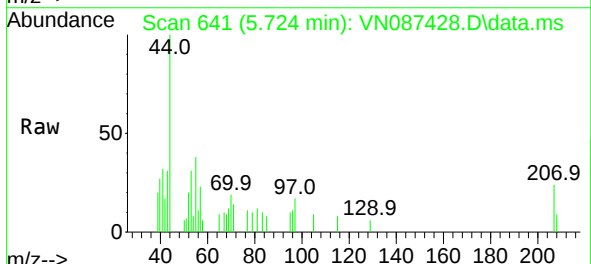
Instrument :
MSVOA_N
ClientSampleId :

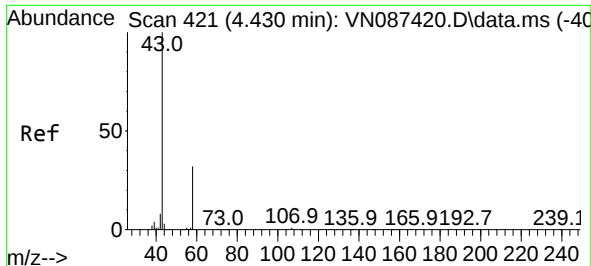
Tgt Ion: 56 Resp: 650
Ion Ratio Lower Upper
56 100
55 78.2 58.9 88.3



#14
Acrylonitrile
Concen: 0.485 ug/l
RT: 5.724 min Scan# 641
Delta R.T. 0.012 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

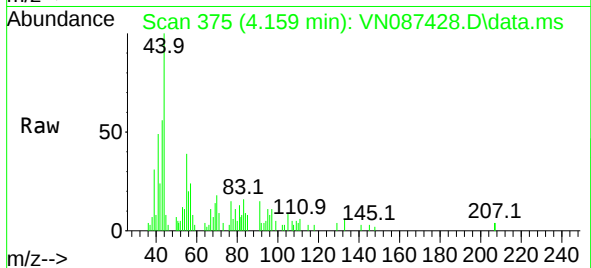
Tgt Ion: 53 Resp: 1405
Ion Ratio Lower Upper
53 100
52 13.9 41.6 124.9#
51 25.9 18.1 54.4



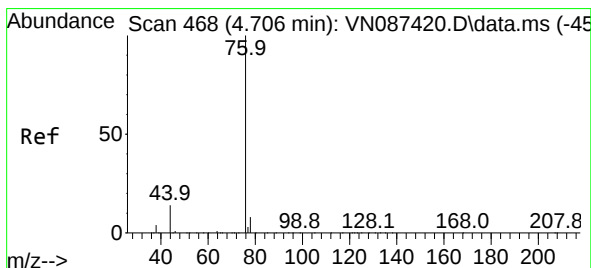
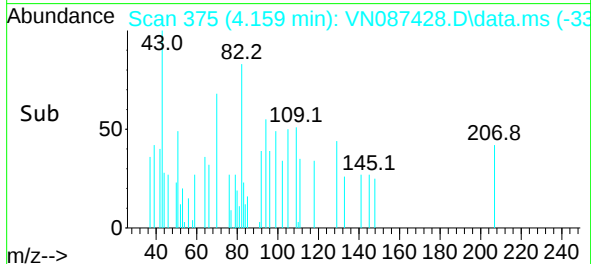
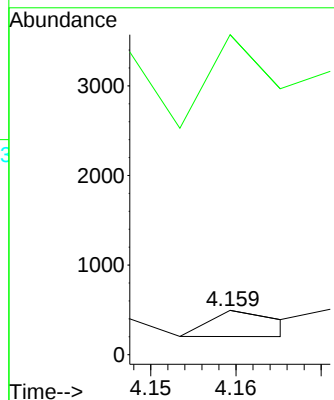


#15
Acetone
Concen: 0.253 ug/l
RT: 4.159 min Scan# 31
Delta R.T. -0.271 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Instrument :
MSVOA_N
ClientSampleId :

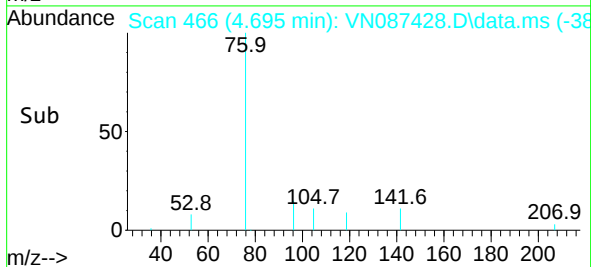
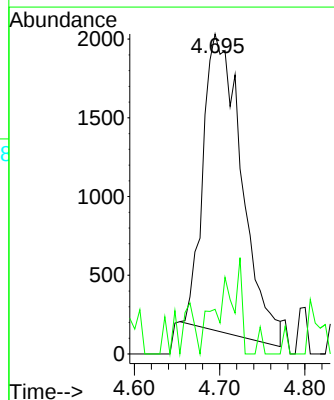
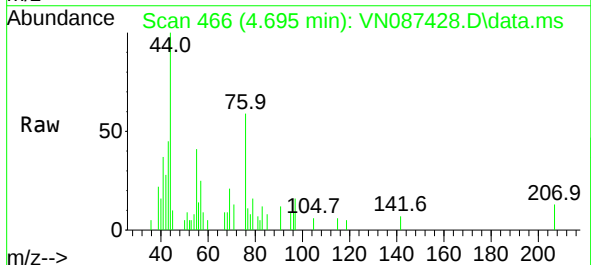


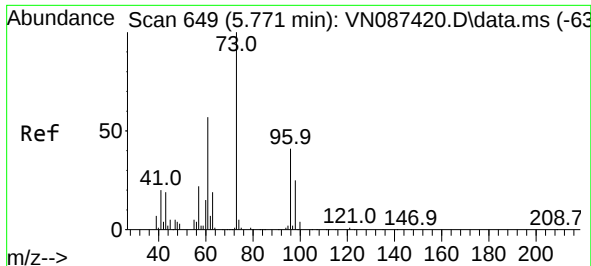
Tgt Ion: 58 Resp: 170
Ion Ratio Lower Upper
58 100
43 358.8 248.4 372.6



#16
Carbon Disulfide
Concen: 0.544 ug/l
RT: 4.695 min Scan# 466
Delta R.T. -0.012 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

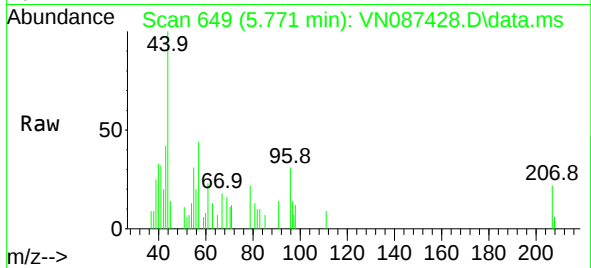
Tgt Ion: 76 Resp: 5916
Ion Ratio Lower Upper
76 100
78 15.5 6.6 10.0#



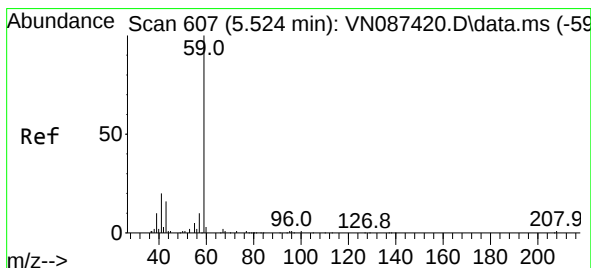
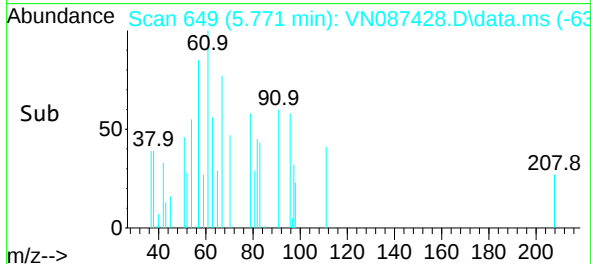
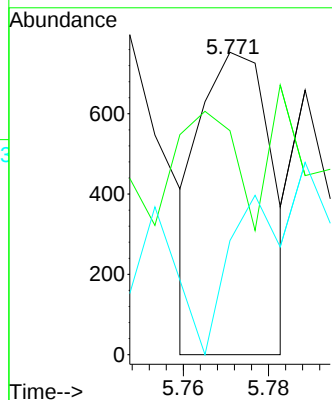


#19
trans-1,2-Dichloroethene
Concen: 0.201 ug/l
RT: 5.771 min Scan# 649
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Instrument :
MSVOA_N
ClientSampleId :

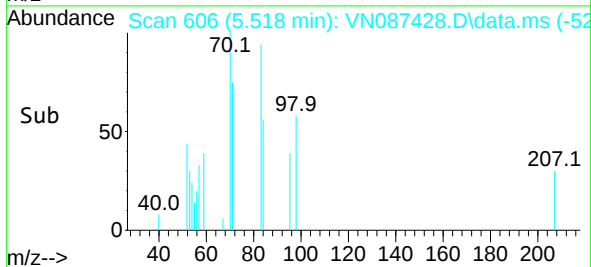
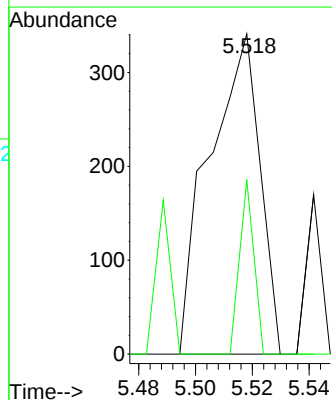
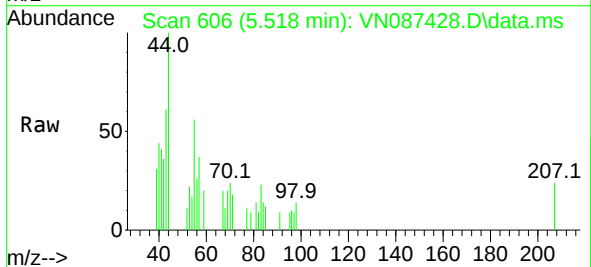


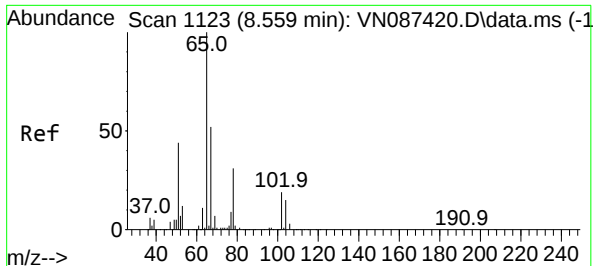
Tgt Ion: 96 Resp: 874
Ion Ratio Lower Upper
96 100
61 2.6 110.2 165.4#
98 25.5 47.9 71.9#



#23
tert-Butyl Alcohol
Concen: 0.375 ug/l
RT: 5.518 min Scan# 606
Delta R.T. -0.006 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Tgt Ion: 59 Resp: 421
Ion Ratio Lower Upper
59 100
52 0.0 0.2 0.2#





#27

1,2-Dichloroethane-d4

Concen: 29.988 ug/l

RT: 8.565 min Scan# 1123

Delta R.T. 0.006 min

Lab File: VN087428.D

Acq: 28 Jul 2025 13:22

Instrument :

MSVOA_N

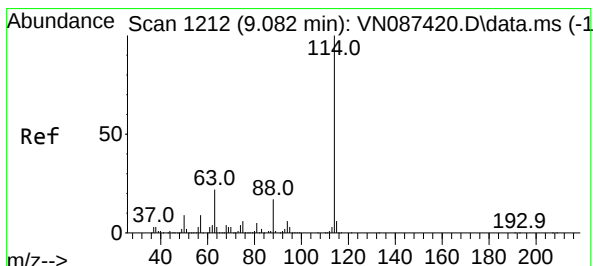
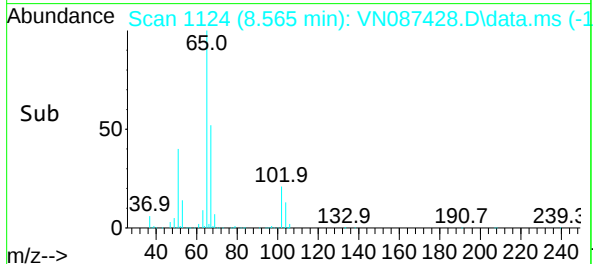
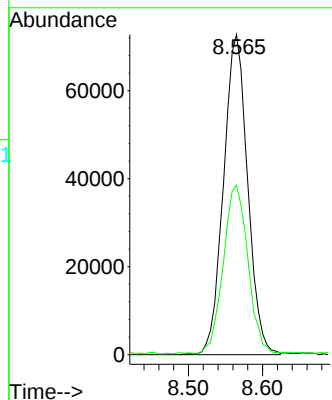
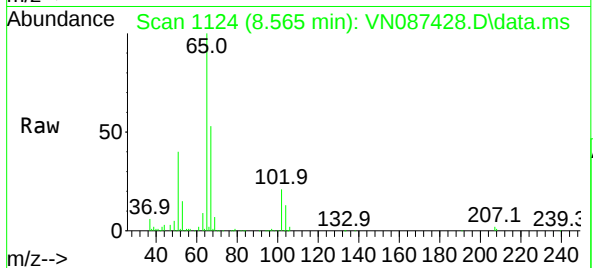
ClientSampleId :

Tgt Ion: 65 Resp: 164125

Ion Ratio Lower Upper

65 100

67 54.0 42.3 63.5



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.082 min Scan# 1212

Delta R.T. 0.000 min

Lab File: VN087428.D

Acq: 28 Jul 2025 13:22

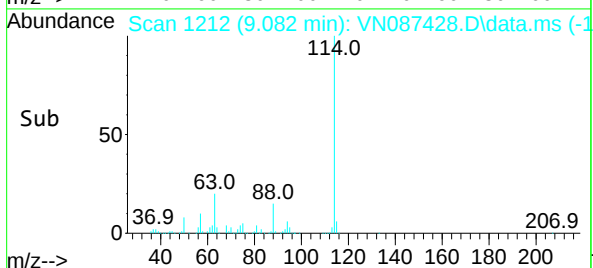
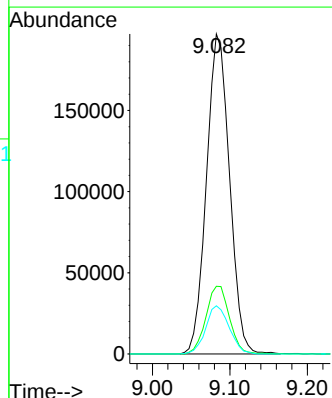
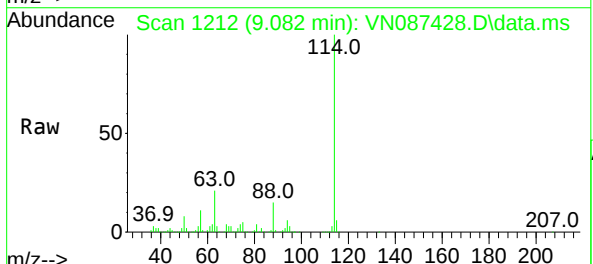
Tgt Ion: 114 Resp: 407686

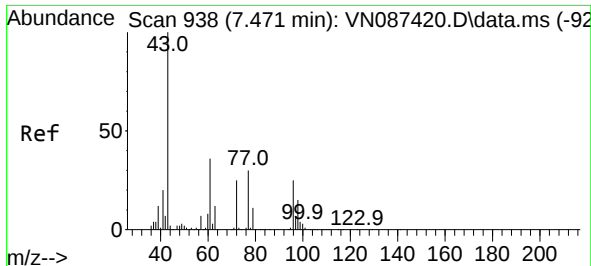
Ion Ratio Lower Upper

114 100

63 21.5 17.8 26.6

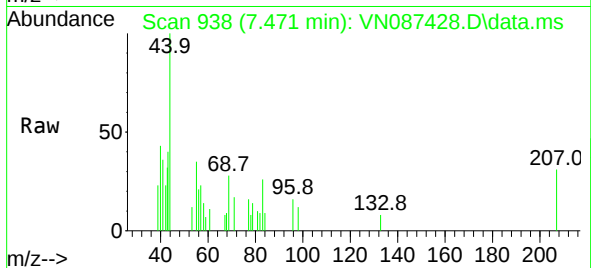
88 15.3 13.0 19.4



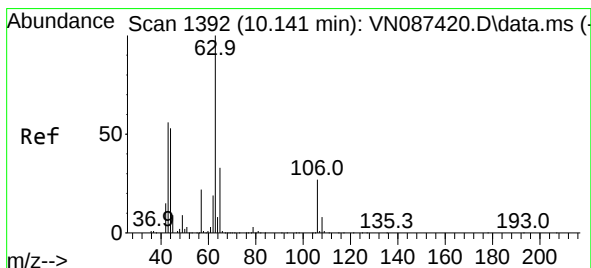
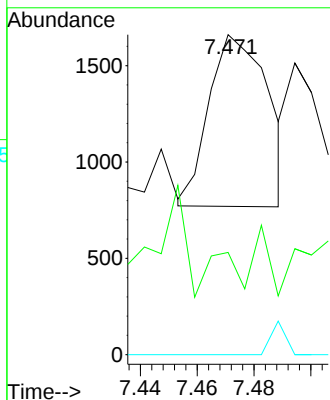
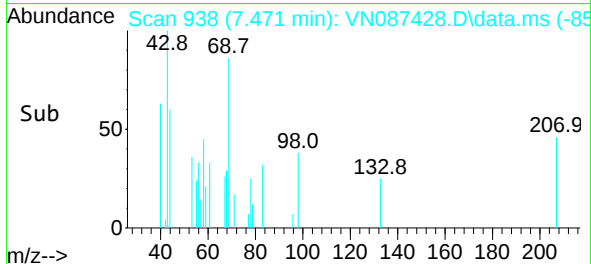


#30
2-Butanone
Concen: 0.306 ug/l
RT: 7.471 min Scan# 91
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

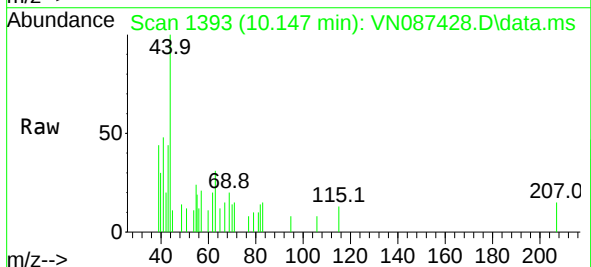
Instrument :
MSVOA_N
ClientSampleId :



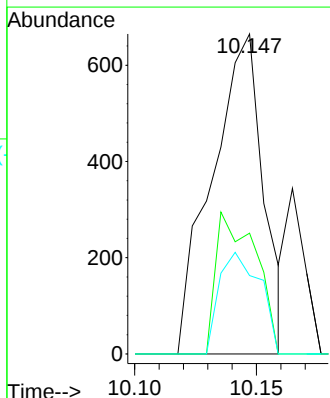
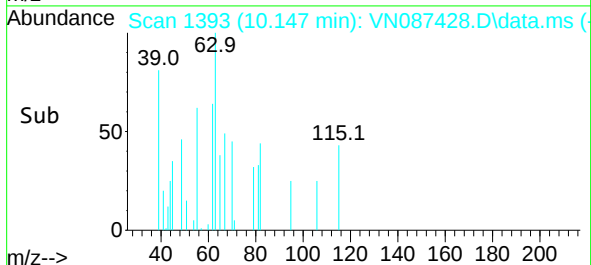
Tgt Ion: 43 Resp: 1285
Ion Ratio Lower Upper
43 100
57 13.5 6.0 9.0#
72 0.0 20.3 30.5#

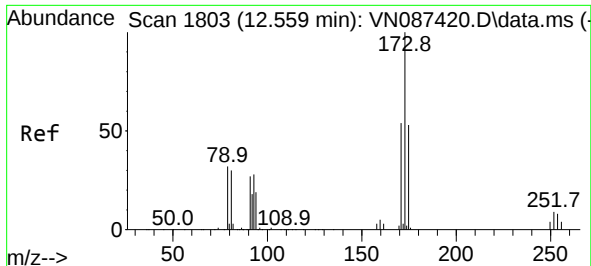


#55
2-Chloroethyl vinyl ether
Concen: 0.293 ug/l
RT: 10.147 min Scan# 1393
Delta R.T. 0.006 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22



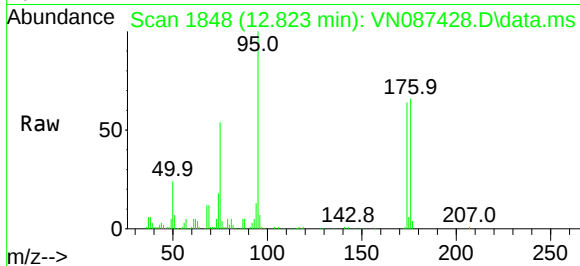
Tgt Ion: 63 Resp: 982
Ion Ratio Lower Upper
63 100
65 34.1 26.2 39.2
106 24.9 21.3 31.9



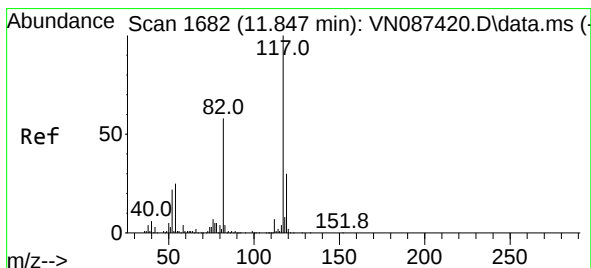
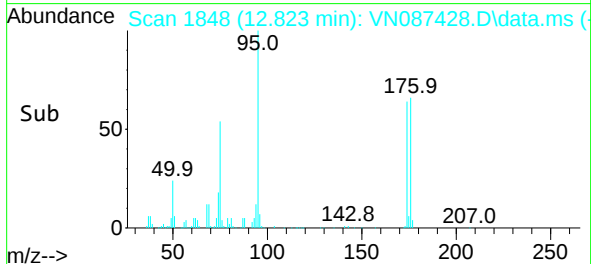
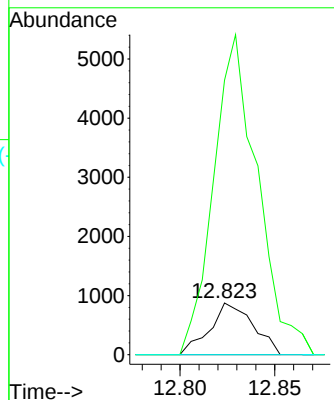


#56
Bromoform
Concen: 0.385 ug/l
RT: 12.823 min Scan# 1848
Delta R.T. 0.265 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Instrument :
MSVOA_N
ClientSampleId :

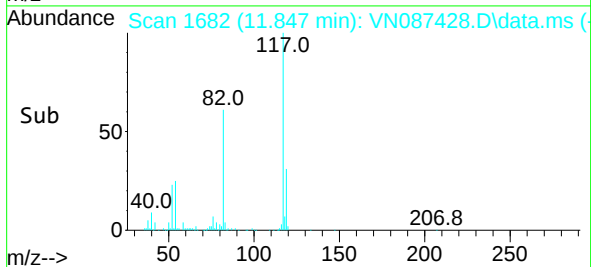
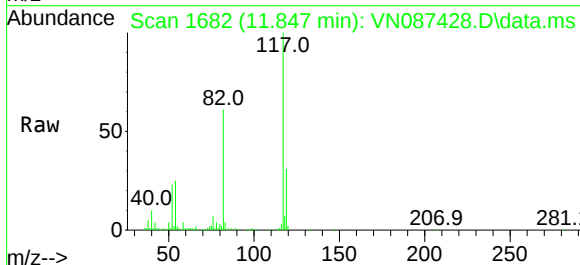
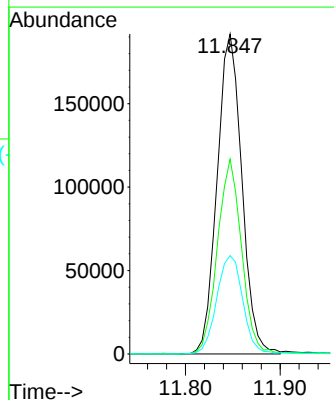


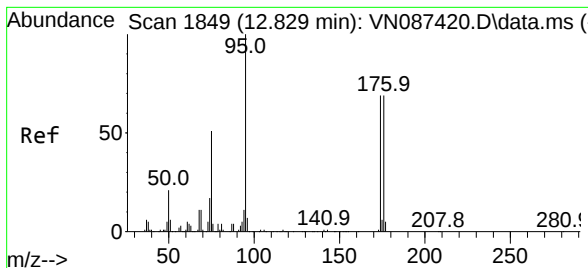
Tgt Ion:173 Resp: 1394
Ion Ratio Lower Upper
173 100
175 618.4 38.4 57.6#
254 0.0 6.4 9.6#



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.847 min Scan# 1682
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Tgt Ion:117 Resp: 348117
Ion Ratio Lower Upper
117 100
82 59.4 46.2 69.4
119 32.3 25.7 38.5

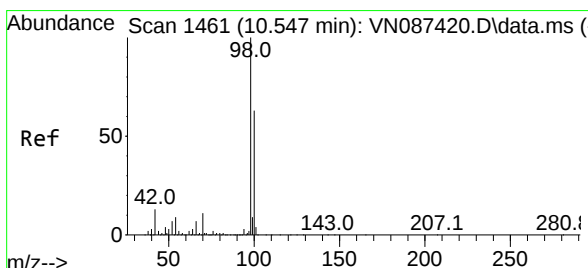
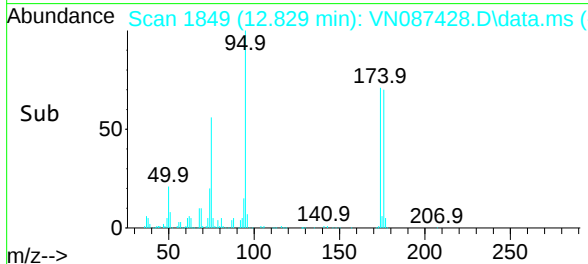
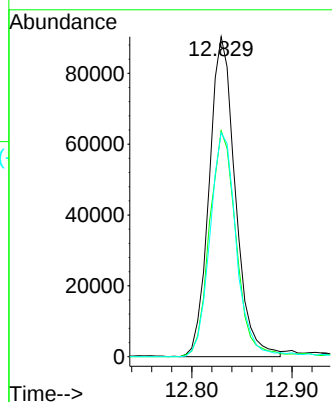
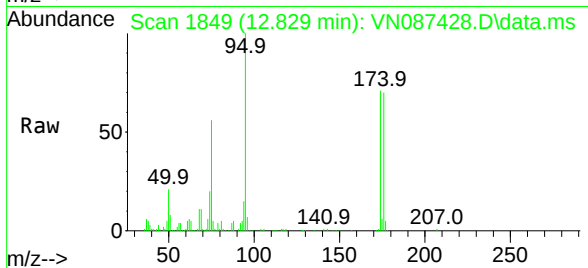




#60
4-Bromofluorobenzene
Concen: 28.643 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

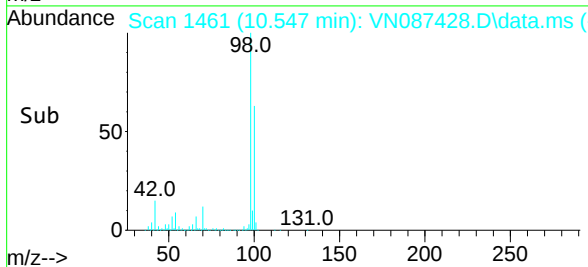
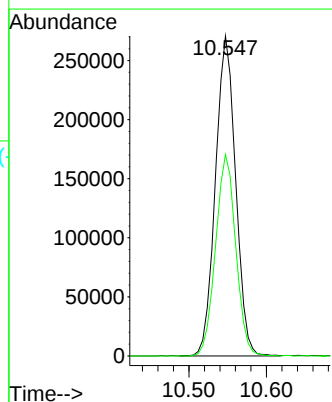
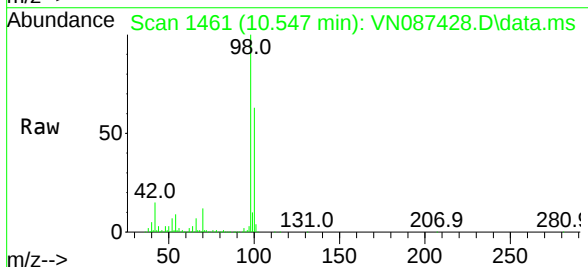
Instrument :
MSVOA_N
ClientSampleId :

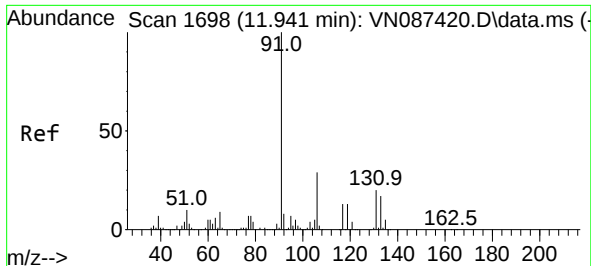
Tgt Ion: 95 Resp: 163739
Ion Ratio Lower Upper
95 100
174 71.5 57.8 86.8
176 70.8 54.9 82.3



#63
Toluene-d8
Concen: 30.705 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Tgt Ion: 98 Resp: 490872
Ion Ratio Lower Upper
98 100
100 62.8 50.7 76.1

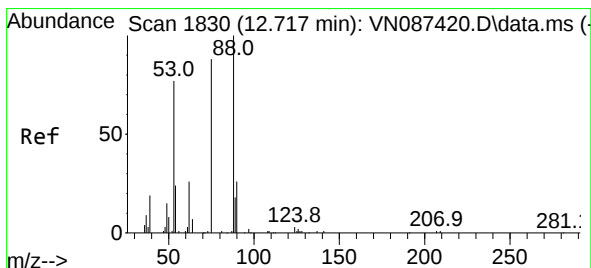
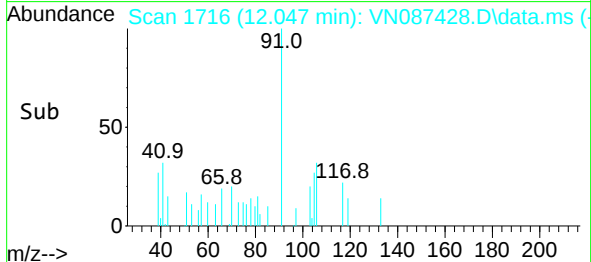
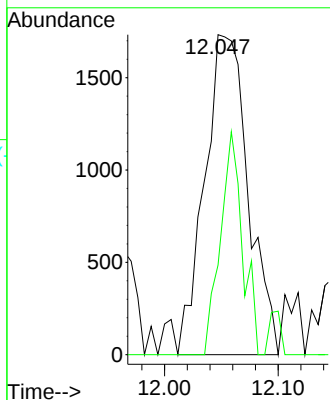
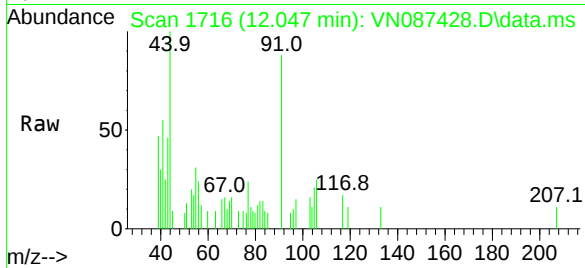




#66
Ethyl Benzene
Concen: 0.215 ug/l
RT: 12.047 min Scan# 11
Delta R.T. 0.106 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

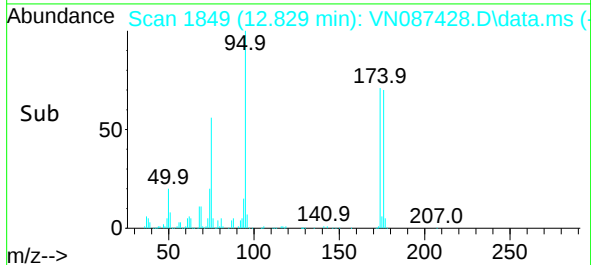
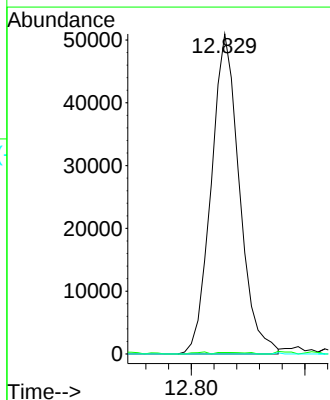
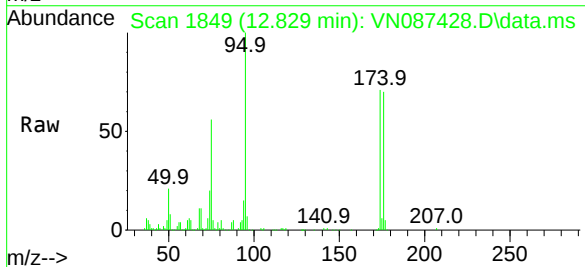
Instrument :
MSVOA_N
ClientSampleId :

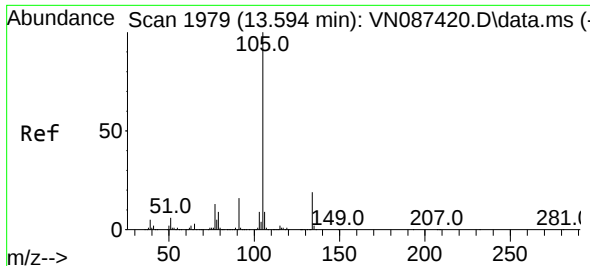
Tgt Ion: 91 Resp: 4614
Ion Ratio Lower Upper
91 100
106 28.0 23.6 35.4



#77
t-1,4-Dichloro-2-butene
Concen: 33.041 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.112 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Tgt Ion: 75 Resp: 87896
Ion Ratio Lower Upper
75 100
53 0.5 44.3 132.8#
89 0.0 22.4 67.3#

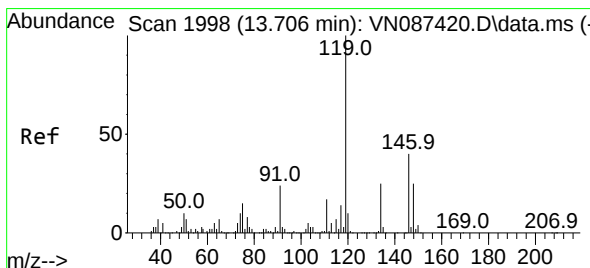
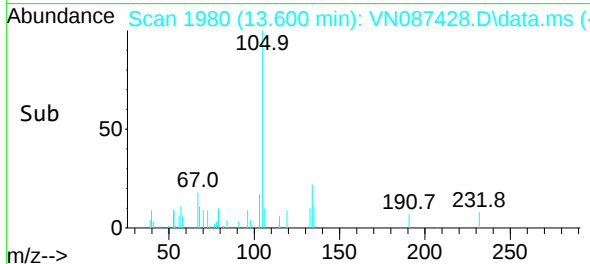
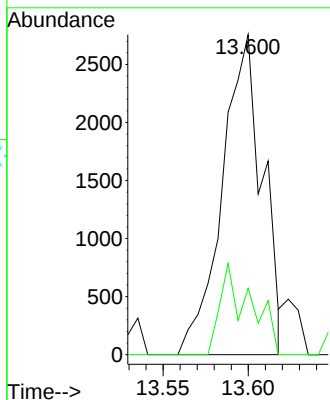
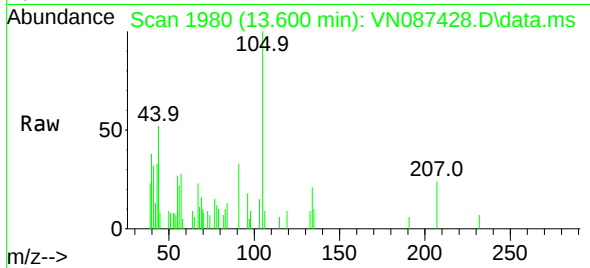




#81
 sec-Butylbenzene
 Concen: 0.211 ug/l
 RT: 13.600 min Scan# 1979
 Delta R.T. 0.006 min
 Lab File: VN087428.D
 Acq: 28 Jul 2025 13:22

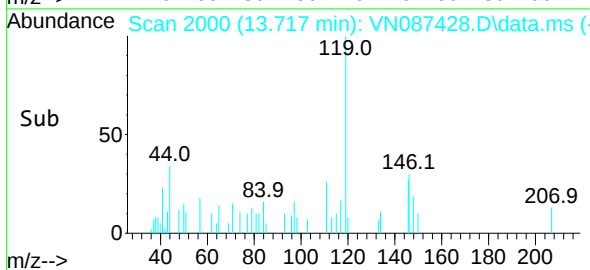
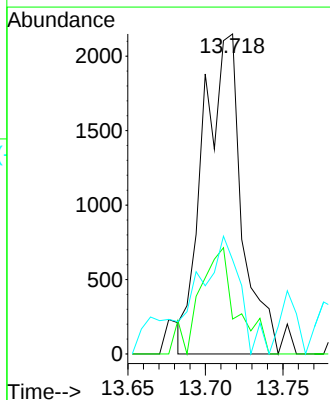
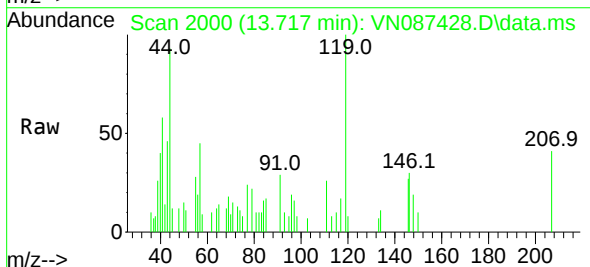
Instrument :
 MSVOA_N
 ClientSampleId :

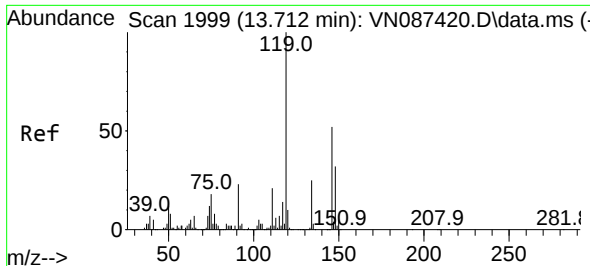
Tgt Ion:105 Resp: 4526
 Ion Ratio Lower Upper
 105 100
 134 11.3 0.0 39.0



#82
 p-Isopropyltoluene
 Concen: 0.213 ug/l
 RT: 13.717 min Scan# 2000
 Delta R.T. 0.012 min
 Lab File: VN087428.D
 Acq: 28 Jul 2025 13:22

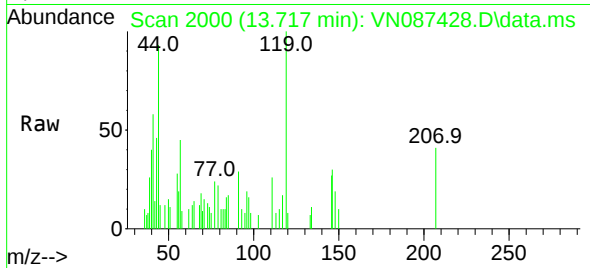
Tgt Ion:119 Resp: 3712
 Ion Ratio Lower Upper
 119 100
 134 30.0 0.0 50.8
 91 23.1 0.0 47.6



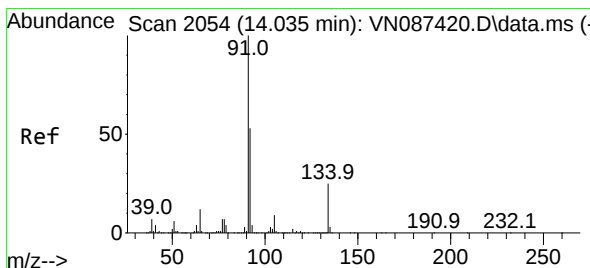
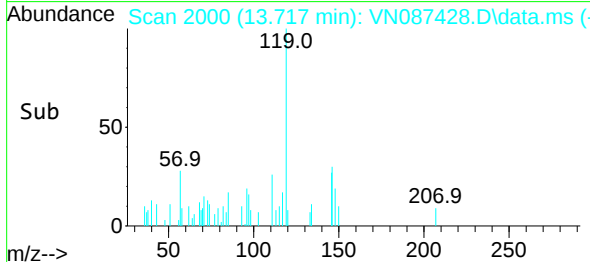
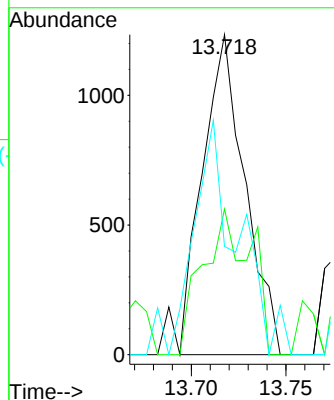


#83
1,3-Dichlorobenzene
Concen: 0.217 ug/l
RT: 13.717 min Scan# 20
Delta R.T. 0.006 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Instrument :
MSVOA_N
ClientSampleId :

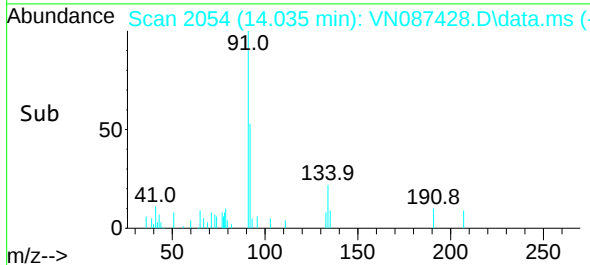
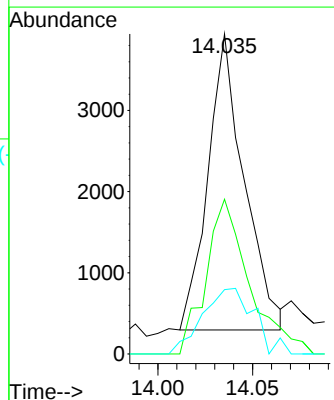
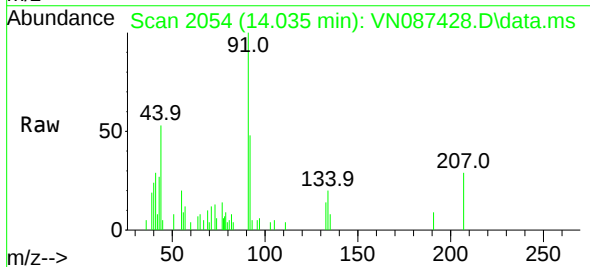


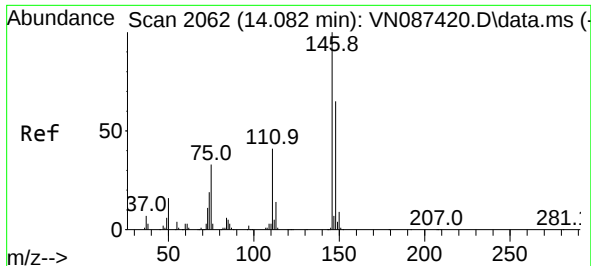
Tgt Ion:146 Resp: 1927
Ion Ratio Lower Upper
146 100
111 23.4 19.9 59.7
148 54.6 31.9 95.5



#85
n-Butylbenzene
Concen: 0.277 ug/l
RT: 14.035 min Scan# 2054
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

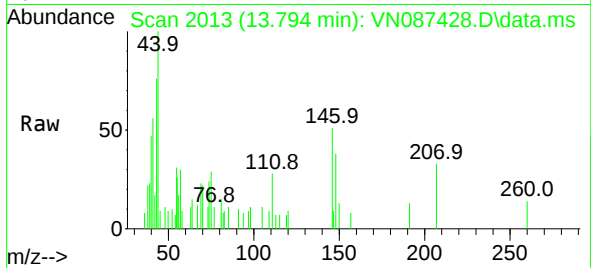
Tgt Ion: 91 Resp: 4865
Ion Ratio Lower Upper
91 100
92 62.5 0.0 104.8
134 30.2 0.0 49.0



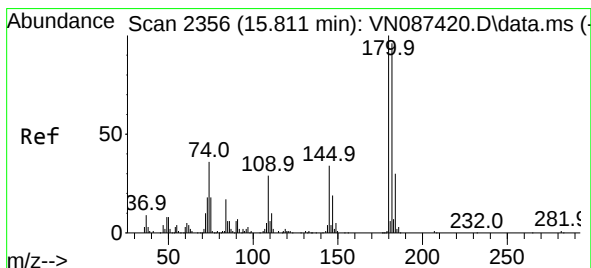
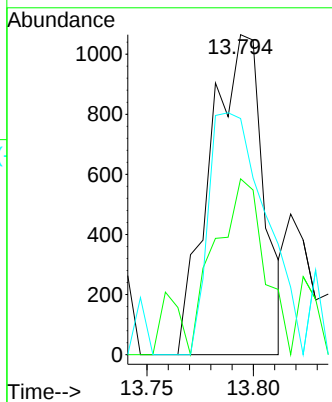
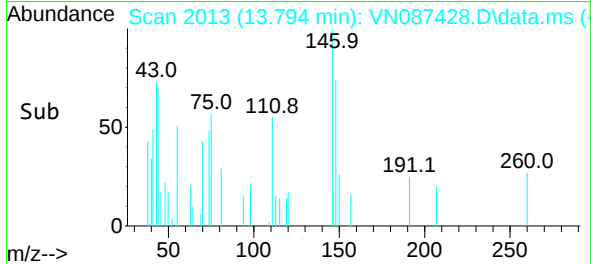


#87
1,2-Dichlorobenzene
Concen: 0.215 ug/l
RT: 13.794 min Scan# 2062
Delta R.T. -0.288 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

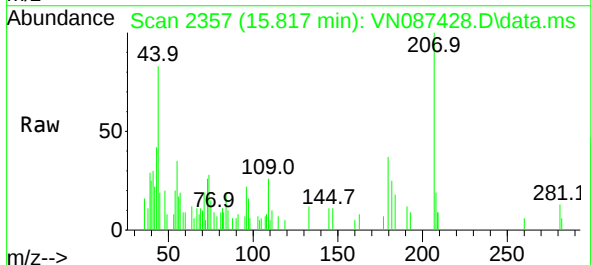
Instrument :
MSVOA_N
ClientSampleId :



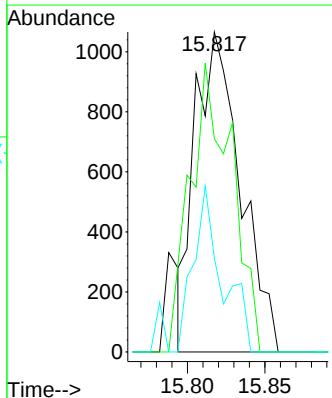
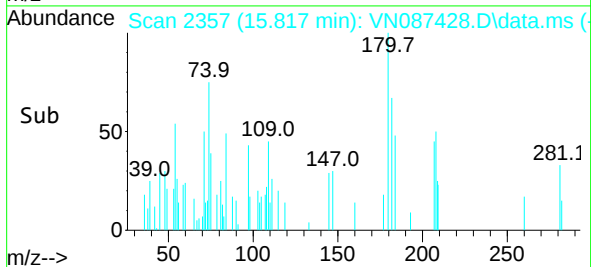
Tgt Ion:146 Resp: 1856
Ion Ratio Lower Upper
146 100
111 50.4 20.6 61.9
148 81.5 32.5 97.5

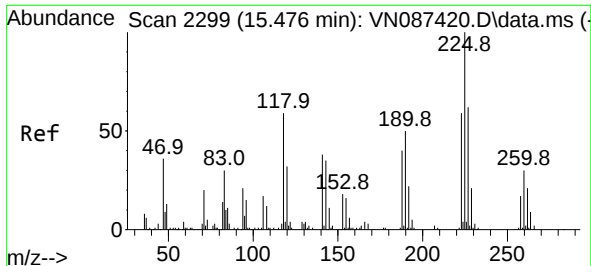


#89
1,2,4-Trichlorobenzene
Concen: 0.414 ug/l
RT: 15.817 min Scan# 2357
Delta R.T. 0.006 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22



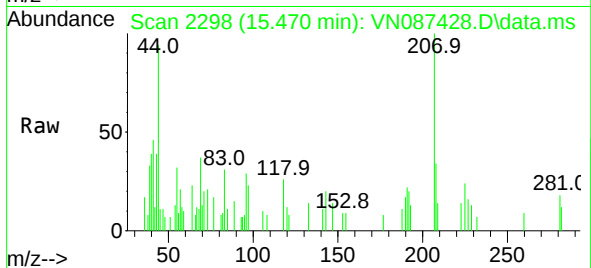
Tgt Ion:180 Resp: 2181
Ion Ratio Lower Upper
180 100
182 60.9 74.7 112.1#
145 25.6 27.4 41.2#



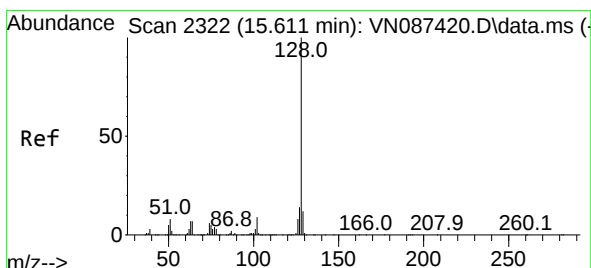
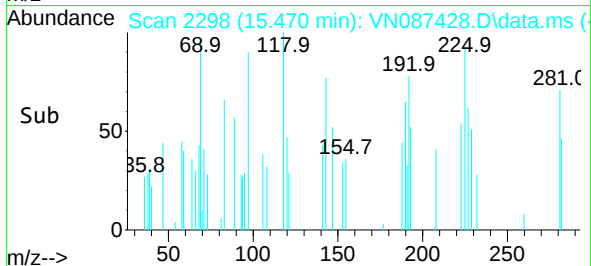
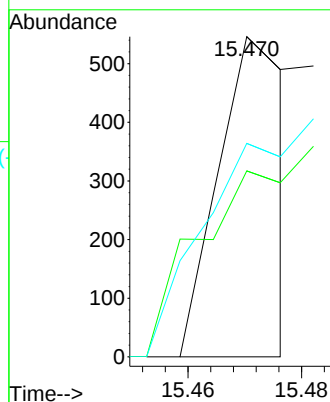


#90
Hexachlorobutadiene
Concen: 0.231 ug/l
RT: 15.470 min Scan# 21
Delta R.T. -0.006 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

Instrument :
MSVOA_N
ClientSampleId :

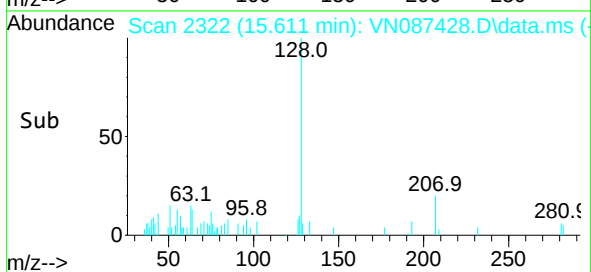
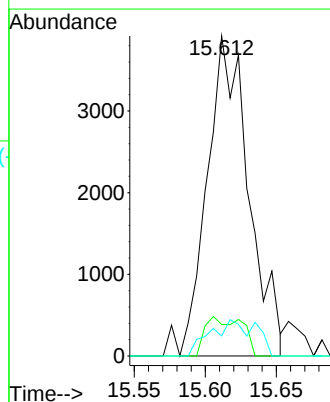
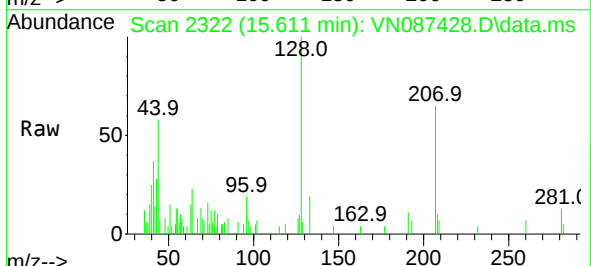


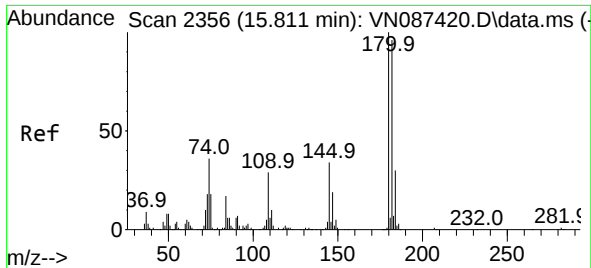
Tgt Ion:225 Resp: 463
Ion Ratio Lower Upper
225 100
223 134.1 0.0 125.4#
227 116.0 0.0 125.0



#91
Naphthalene
Concen: 0.398 ug/l
RT: 15.611 min Scan# 2322
Delta R.T. 0.000 min
Lab File: VN087428.D
Acq: 28 Jul 2025 13:22

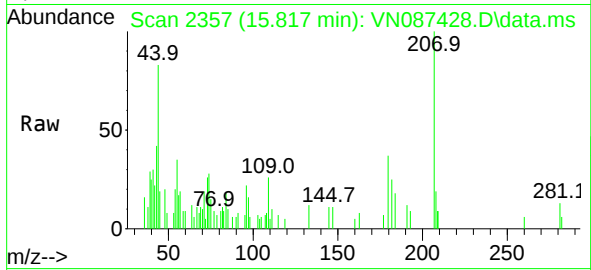
Tgt Ion:128 Resp: 7920
Ion Ratio Lower Upper
128 100
127 3.6 10.7 16.1#
129 4.8 9.1 13.7#





#92
 1,2,3-Trichlorobenzene
 Concen: 0.414 ug/l
 RT: 15.817 min Scan# 21
 Delta R.T. 0.006 min
 Lab File: VN087428.D
 Acq: 28 Jul 2025 13:22

Instrument :
 MSVOA_N
 ClientSampleId :



Tgt Ion:	180	Resp:	2181
Ion Ratio	Lower	Upper	
180	100		
182	60.9	0.0	186.8
145	25.6	0.0	68.6

